

REMARKS

This amendment is submitted in response to Final Office Action dated August 21, 2007. In the response, claims 1-9, 11-18 and 20-23 remained pending in the application. Reconsideration and withdrawal of the rejections set forth in the Final Office Action dated August 21, 2007 are respectfully requested.

Claim Objection

Claims 7 and 14 stand objected because of informalities. Applicant has amended the claims in a manner that moots any need for the Examiner's suggested changes and trusts that the objection will be withdrawn.

Claim Rejections under 35 USC §112

Claims 7-9 and 14-18 stand rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Without admitting the propriety of the rejection, Applicant has amended the claims to delete the term "substantially" and trusts that the rejection on this basis will be withdrawn. Applicant submits however that a worker having ordinary skill in the art would be reasonably apprised of the meaning of substantial simultaneous execution as would occur in the context of the invention as described in the application.

Claims 7-9 stand rejected under 35 USC §112, second paragraph, as being incomplete for omitting an essential step, such omission amounting to a gap between the steps. Claims 8 and 9 stand rejected as being dependent upon a rejected base claim.

Again, without admitting the propriety of the rejection, Applicant has amended the claim to add a step corresponding to loading the application program and trusts that the rejection on this basis will also be withdrawn.

Claim Rejections under 35 USC §102

Claims 7 and 8 stand rejected under 35 USC §102(e) as anticipated by *Morshed et al.* US Patent No. 6,760,903. Claims 14 and 15 stand rejected under 35 USC §102(b) as anticipated by *Scales et al.* US Patent No. 5,802,585.

With reference to claim 7, applicant has amended the claim to further distinguish over the cited art. Claim 7 now requires (See amended version showing changes):

A method of loading an application program written to operate only on a single computer onto each of a plurality of computers, the plurality of computers being interconnectable via a communications link, and different portions of said application program being simultaneously executable on each different one of the plurality of computers with each different one of the plurality of computers having a different independent local memory accessible only by a corresponding portion of the application program, the method comprising the steps of:

loading the application program onto each different computer of said plurality of computers; and

modifying the application program on each said different computer before execution of said corresponding portion of the application program on each said different computer.

Applicant particularly wishes to point out that claim 7 is directed to a method of loading an application program ... onto each of a plurality of computers, and now requires that the application program have been "written to operate only on a single computer". Claim 7 as amended now also requires that "different portions of said application program being simultaneously executable on each different one of the plurality of computers with each different one of the plurality of computers having a different independent local memory accessible only by the corresponding portion of the application program". Applicant submits that the cited art fails to disclose, suggest, or motivate any need for either of these features alone or in any combination.

Support for the limitation "written to operate only on a single computer" is provided at least at page 5, line 29 to 33 of the application as filed and shown at least in FIG. 5 and FIG. 8 of the application as filed. With particular reference to FIG. 5 and FIG. 8 above, "each of the machines *operates with the same code and data on each machine and thus all of the machines have the same code and data*, as cited at page 5, line 29 to 33. In addition, the codes stored on each machine (i.e., JVM#1, JVM#2, etc.) has been modified by the same rules (or substantially the same rules since minor optimizing changes are permitted). Therefore, the amendment raises no question of new matter.

As discussed in the previous responses, *Morshed et al.* discloses a coordinated application monitoring in a *distributed computing environment* (emphasis added). (See *Morshed et al.* at Title and ABSTRACT.) However, *Morshed et al.* nowhere discloses as amended claims 7 and 14 recite:

(Claim 7) A method of loading an application program written to operate only on a single computer onto each of a plurality of computers, the plurality of computers being interconnectable via a communications link, and different portions of said application program being simultaneously executable on each different one of the plurality of computers with each different one of the plurality of computers having a different independent local memory accessible only by the corresponding portion of the application program, ...

(Claim 14) A method of compiling or modifying an application program written to operate on only a single computer but to run simultaneously on one of a plurality of computers interconnectable via a communications link, with different portions of said application program simultaneously executable on different ones of said plurality of computers with each one of the plurality of computers having an independent local memory accessible only by the corresponding portion of the application program,

That is, in contrast to claims 7 and claim 14, which recite: "an application program written to operate only on a single computer," *Morshed et al.* discloses a "distributed application." Moreover, it is respectfully submitted that *Morshed et al.* is especially written to operate on two or more machines. This concept is illustrated at FIG. 30 of *Morshed et al.* and disclosed when *Morshed et al.* described: "a distributed software application that executes in the system 1000 may include a portion of the software 1020 and also a portion of the software 1022 collectively with interprocess communication mechanism 1024." (See *Morshed et al.* at FIG. 30, column 33, lines 45-55.)

Furthermore, FIG. 37 of *Morshed et al.*, indicates communication by remote procedure calls between the client 1020 and server 1022 of FIG. 30 during the application program. That is, at least two computers are involved in executing the application program in *Morshed et al.* Further, FIG. 36 shows a case where two or more computers (i.e., 1020d, 1022d and 1022e) are involved in executing the application program. It will be appreciated that *Morshed et al.* operates in a way that is in contrast to the cited limitations of the claimed invention of being: "written to operate only on a single computer."

Furthermore, due to the execution of the application being carried out by the second machine 1022 on behalf of the first machine 1020, the configuration of FIG. 30 may be likened to a

master/slave relationship. This is in further contrast to the claimed invention where, as recited in claim 7 (different portions of said application program being simultaneously executable on each different one of the plurality of computers with each different one of the plurality of computers having a different independent local memory accessible only by the corresponding portion of the application program), and claim 14 (with different portions of said application program executing simultaneously on different ones of said plurality of computers with each one of the plurality of computers having an independent local memory accessible only by the corresponding portion of the application program). Thus, in consideration of the above discussion, it is respectfully submitted that the cited art actually teaches away from the subject matter recited in Applicant's claims 7 and 14. Therefore, it is respectfully submitted that *Morshed et al.* does not disclose, anticipate or inherently teach the claimed invention and that claims 7 and 14, and claims dependent thereon, patentably distinguish thereover.

Claims 9 and 14 have been amended to correct a typographical error in which the word "context" was inadvertently typed rather than "content". This typographical error has been corrected.

Claims 14 and 15 were rejected under 35 U.S.C. Section 102(b) as being anticipated by US Patent No. 5,802,585 (*Scales et al.*). Application respectfully traverses the rejection.

With the currently proposed amendment to independent claim 14, the present basis for rejection is mooted. That is, for the same reasons as discussed above, in contrast to the claimed invention, *Scales et al.* discloses a distributed application program. More specifically, *Scales et al.* discloses a "distributed application" written to operate *on two or more machines*. Therefore, for at least the same reasons as discussed above for *Morshed et al.*, it is respectfully submitted that *Scales et al.* does not disclose, anticipate or inherently teach the claimed invention and that claim 14 and claims dependent thereon, patentably distinguish thereover.

Claim Rejections under 35 USC §103

Claim 9 stands rejected under 35 USC §103(a) as unpatentable over *Morshed* in view of *Scales*. Claim 16 stands rejected under 35 USC §103(a) as unpatentable over *Scales* as applied to claim 14 in the office action, and further in view of *Morshed et al.*. Claims 17 and 18 stand rejected under 35 USC §103(a) as being unpatentable over *Scales et al.* as applied to claim 14 in the office action, and further in view of *Dimpsey, et al.* US Publication No. 2004/0163077.

With reference to claim 9 (dependent from claims 7 or 8), as discussed above, *Scales et al.* does not disclose the limitations of underlying base claim 7. Thus, for at least the same reasons set forth above, *Scales et al.* also does not disclose the limitations of dependent claim 9. Claim 9 has been amended to add additional punctuation (commas) at the end of each clause to improve readability after publication, but is otherwise unchanged. These amendments are not directed toward patentability issues. Claim 9 requires that the method of claim 7 or claim 8 provide that the modifying step comprise the following steps:

- (i) detecting instructions which share memory records,
- (ii) listing all such shared memory records and providing a naming tag for each listed memory record,
- (iii) detecting those instructions which write to, or manipulate the contexts of, any of said listed memory records, and
- (iv) generating an alert instruction corresponding to each said detected write or manipulate instruction, said alert instruction forwarding the re-written or manipulated contents and name tag of each said re-written or manipulated listed memory record.

The office action acknowledges that *Morshed et al.* does not disclose the elements of claim 9, and attempts to make up for that deficiency with *Scales et al.* *Scales et al.* is directed to a distributed shared memory system. Applicant submits that the office appears to be using impermissible hindsight to search through *Scales et al.* specification in an attempt to identify words or phrases which superficially seem to match the words and phrases in Applicant's claims, but that are actually different. Applicant submits that such hindsight sight would not be available prior to the invention and that the claims should be evaluated as a whole and that neither no combination of *Morshed et al.* and *Scales et al.* provides the requisite disclosure, teaching, suggestion, or motivation to combine that would obviate the subject matter of Claim 9.

With reference to claims 17-18 (dependent from claim 14), claim 17 requires that the method be "carried out by just-in-time compilation" and claim 18 requires the method be carried out by "re-compilation after loading". As discussed above, *Scales et al.* does not disclose the limitations of underlying base claim 14. Thus, for at least the same reasons set forth above, *Scales et al.* also does not disclose the limitations of dependent claims 17 and 18.

In an attempt to overcome the deficiencies of *Scales et al.*, the office action attempts to combine *Dimpsey et al.* with *Scales et al.*; however, *Dimpsey et al.* cannot overcome all of the deficiencies of *Scales et al.* as discussed immediately below.

Dimpsey et al. is another example of instrumentation used in order to collect execution information such as execution statistics and *Dempsey et al.* appears to have been cited merely to indicate that just-in-time compilation is in the known background art. However, it must be appreciated that *Dimpsey et al.* nowhere discloses the limitations recited in either claim 14 or in the combination of elements in claim 17 or claim 18. In contrast to the recited claims limitations, *Dimsey et al* discloses an instrumentation method with a distributed application program. Thus, *Dimpsey et al.* cannot overcome the same deficiencies that *Scales et al.* has, as was discussed herein above.

Furthermore, *Dimpsey et al.* deals with application programs that have been partitioned to operate on multiple machines or computers and thus constitute prior art of the type referred to in FIG. 3 of the instant application and differentiated from in the detailed description thereof. It should be appreciated that the claims in their amended form are not concerned with such prior-art distributed systems and instead operate with an application program written to operate on only a single computer. In view of the disparity between the cited prior art and the claimed invention, it is respectfully submitted that an obviousness based rejection standing on the cited prior art cannot be sustained. In addition, there is no motivation to combine these references and such combination would not lead one to the claimed invention. Therefore, it is respectfully submitted that neither *Scales et al.* nor *Dimpsey et al.*, whether taken individually or in combination, disclose, suggest, motivate any need for, or otherwise make obvious the claimed invention.

New Claims

Applicant has added new claims 25-28 which are directed to alternative embodiments of the invention. Applicant submits that each of these claims are patentable over the cited art for at least the same reasons argued relative to the previously pending claims, and although using different

claim language, new independent claim 27 is directed to a method of loading an application program and new independent claim 28 is directed to a method of compiling or modifying an application program. These two new independent claims are therefore somewhat analogous to pending claims 7 and 14 and are appropriate for examination with them.

CONCLUSION

Applicant believes that all pending claims are now allowable. Applicant respectfully requests that all rejections be withdrawn and a Notice of Allowance be issued at the earliest possible date.

If the Examiner believes a further conference would be of value in expediting the notice of allowance, he is cordially invited to telephone the undersigned counsel at (650) 838-4367.

Applicant believes that no fees are due pursuant to this response other than those submitted herewith. The Commissioner is authorized to charge Deposit Account Number 50-2207 (Atty. Docket No. 61130-8110.US01) for any fees including additional claims fee, fees for claims that have been converted from dependent to independent form and not already paid for, Petitions for Extension of Time fees or other fees that have not been separately paid, to make this response timely and acceptable to the Office.

Respectfully submitted,
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